

Diploma in Civil Engineering

Term - End Examination

December, 2010

01735

BCE-051 : CONSTRUCTION MANAGEMENT

Time : 2 hours

Maximum Marks : 70

Note : Question No.1 is compulsory. Attempt any four questions from the remaining. All questions carry equal marks. Give neat and labelled sketches wherever necessary.

1. (a) State the most appropriate answer from the options given in the following questions : $4 \times 2 = 8$
 - (i) "Mobility of facility" is a feature of :
 - (a) manufacturing industry.
 - (b) power industry.
 - (c) automobile industry.
 - (d) None of the above.
 - (ii) Permissible limit of chloride in water used for mixing and curing of concrete is :
 - (a) 1000mg/l for PCC & 2000mg/l for RCC
 - (b) 2000mg/l for PCC & 1000mg/l for RCC
 - (c) 1000mg/l for PCC and RCC both
 - (d) 2000mg/l for PCC and RCC both

- (iii) The relationship between various activities is not reflected in :
 - (a) CPM network
 - (b) Precedence network
 - (c) Bar chart
 - (d) GERT network
- (iv) In project cost control approach, the cost variance is defined as
 - (a) BCWP-ACWP (b) ACWP-BCWP
 - (c) BCWP-BCWS (d) BCWS-BCWP
- (b) State whether the following statements are 'true' or 'false' : 6
 - (i) Cash and receivables form major portion of the assets of a construction firm whereas fixed assets form only a minor share.
 - (ii) Site selection and site investigation are the part of site organisation.
 - (iii) Project organisational requirements differ from the corporate organisational need.
 - (iv) PERT is rarely used in construction project
 - (v) For an activity, crash time duration is always greater than its normal time duration.
 - (vi) The pre-qualification of contractors restricts competition to large and rich contractors.

2. (a) Explain the responsibilities of three groups of stakeholder involved in a construction project. Comment on their inter relationship for the successful implementation of the project. 7
- (b) Discuss the different phases of project life cycle by describing the important processes / tasks undertaken during the phases. 7
3. (a) Describe the important factors affecting and natural elements influencing the site selection. 7
- (b) List the precautions to be taken in the storage of cement at a construction site. 7
4. (a) Explain the procedure to invite tenders. How are they open and evaluated? 7
- (b) What is retention money? Describe its purpose. 7
5. (a) How do you define contract? Describe briefly the elements of a contract. 7
- (b) What do you understand by arbitration? How is it different from litigation? 7
6. (a) With the help of the list of activity dependencies given below, draw an accurate network using not more than one dummy activity. 7

Activity	Predecessor	Activity	Predecessor
A	-	E	C and D
B	-	F	D
C	A	G	A
D	B and G	H	E

(b) Define float. Describe the different type of float. 7

7. Write short notes on any four of the following : 4x3 1/2=14
- (a) Characteristics of construction industry
 - (b) Project organisational structure
 - (c) Line of balance technique
 - (d) Project cost control
 - (e) General condition of contract
 - (f) Professional liability insurance
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